



# The Conservation Strip

CONSERVING NATURAL RESOURCES FOR A BETTER ENVIRONMENT

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## Conservation Awards Luncheon

The John Marshall Soil and Water Conservation District hosted its annual Conservation Awards Luncheon on December 16, 2004, at The Inn at Vint Hill. Each year, the District recognizes individuals and organizations for outstanding conservation accomplishments. Award recipients for 2004 are:

- The **2004 Outstanding Business Partner Award** was presented to **Robyn Joiner** of **Joiner Micro Labs** in Warrenton. Robyn has been a fixture for many years in presenting Water Quality demonstrations at Conservation Field Days and Farm Tour events for literally thousands of Fauquier County students. Ms. Joiner communicates very effectively to differing age groups as she demonstrates different chemical tests, explains the water cycle, and emphasizes the need for conservation practices in the home and on the farm that keep nutrients and chemicals from entering the water supply.
- The **2004 Harry Jones Conservation Farmer Award** for the **Potomac** watershed was awarded to **John L. Richardson** of Oakwood Farm in Delaplane. Oakwood Farm has installed over 2200 feet of stream protection fencing and riparian buffers, 775 feet of pond protection fence and buffers, and four freeze proof water troughs. Over 3500 feet of pipe has been installed to move water from a well to the water troughs. These BMP's have provided for the implementation of an excellent rotational grazing system for a herd of angus cattle. In addition, the Richardson's are restoring their 1700's home and dependencies to their original grandeur.
- The **2004 Harry Jones Conservation Farmer Award** for the **Rappahannock** watershed was awarded to **Mack and Peggy Baer**, owners of Baer Back Farms located near Orlean. Baer Back Farms is a working horse, cattle, and hay farm. In addition to

their angus cattle, the farm features a horse boarding and training facility that trains young horses and riders in Classic Dressage. The Baer's have installed over 6000 feet of stream and pond protection fencing and riparian buffers, four freeze proof troughs, and 2246 feet of pipeline to facilitate a rotational grazing system for both horses and cattle.

- **Sarah Henry**, of Highland School, was recognized last spring for her 'Living Soil' poster which placed first in county judging. Her poster advanced to State competition where it placed second in recent judging. Sarah received a certificate and ribbon from the Virginia Association of Soil & Water Conservation Districts.
- The JMSWCD also recognized outgoing **County Administrator Bob Lee**. In his 14 year tenure, Mr. Lee was a strong supporter of the District, its personnel, and programs.



John and Peggy Richardson of Oakwood Farm, Sarah Henry of Highland School, Robyn Joiner of Joiner Micro Labs, and Mack and Peggy Baer of Baer Back Farms were recognized at the annual JMSWC Awards Luncheon on December 16.

# Teacher's Corner

The JMSWCD has numerous booklets, brochures, and other items that may be of use to teachers and leaders of 4-H, scout, and home school groups. Most are from various government agencies that deal with the environment and natural resources. The following lists contain titles and approximate number available. Teachers and youth leaders may come by the District Office to review them. They will be given away first come/first serve.

The following publications are in comic book format. Most are 10-20 pages. Some are straight reading, others have simple activities. They are most appropriate for elementary ages.

Smokey Bear - Friend of the Forest (70), Operation Backyard (60), The Natural Gasbook (25), Gilmores Guide to Natural Gas (25), Nature Pals (80), We Need Trees (50), Across Time and Space - Ecosystem Management (50) Search for Soil (40), Backyard Butterflies (50), Fun Food Facts (100), The Story of Drinking Water (500).

The following publications are generally larger (more pages) and printed on glossy paper. They are most appropriate as reference materials for teachers, or for

middle and high school students doing projects or reports.

Virginia's Waterways (10), Toward A Watershed Approach (20), Raindrops Keep Falling On Your Head (10), Tennessee Valley Water Authority Water Quality Series (5), Backyard Conservation (15), Educators and Virginia's Wildlife Laws (50), Conservation Trees and Shrubs pocket guide (8), Teaching Soil and Water Conservation (30), Early American Soil Conservationists (35), Ag in the Classroom (50 student and 35 teacher manuals)

The District also has bumper stickers for the Rappahannock and Potomac watersheds, posters for the Water Cycle, Backyard Bird Conservation, and Common Fishes of Virginia.

Publications may be picked up through January. After January, they will start going to the recycling center.

The JMSWCD also has the Enviroscape model, the Groundwater Flow Model, and a program on Tree Identification ready to roll. To schedule a classroom presentation, contact Chuck Hoysa at 347-3120x3, or email [chuck.hoysa@va.nacdnet.net](mailto:chuck.hoysa@va.nacdnet.net).

## Classroom Grants

Virginia Naturally is accepting **Classroom Grants** for Meaningful Watershed Experiences until **January 15**. Grants can be for \$500, \$750, or \$1,000. The entire process can be completed online from the Virginia Naturally website [www.vanaturally.com/classroomgrants.html](http://www.vanaturally.com/classroomgrants.html). Activities that are eligible for funding include restoration, enhancement, protection, and monitoring projects, as well as investigative or experimental activities that foster academic success, reinforce responsible citizenship, and give children the tools they need to contribute to a healthy and enduring environment. The website has additional information, as well as examples of previously funded projects.

## Quotable 'Quotes'

The District frequently receives Thank You notes from students following field days and farm tour events. Following are some memorable quotes from the most recent batch.....

*'I don't know how you remember all the facts and figures you told us. I don't remember anything you said.'*

*'Thanks for telling us where to go.'*

*'I learned so much from the field trip, my favorite part was lunch.'*



# Fall Highlights



The JMSWCD staff participated in the annual International Coastal Cleanup on October 7 by picking up litter along Rt. 802 where it crosses the Rappahannock River. 680 pounds of trash was collected and weighed at the landfill.



Students from Helen Lathrop's Biology and Ecology classes continued their long term monitoring projects. Students collect macro-invertebrates and conduct chemical tests. Here, a student prepares to test for Dissolved Oxygen on Cedar Run.



Robyn Joiner of Joiner Micro Labs demonstrates water quality testing in the rain at Messick's Dairy Farm to 7th grade students from Taylor Middle School.



The buses roll in. Almost 800 third grade students visited Elk Mount, Inglewood, and Blue Ridge Farms as part of the annual Third Grade Farm Tour.



Keith Dickinson, Fauquier County Extension Agent, leads third grade students through the Farm Life Cycle exercise at the Third Grade Farm Tour in September.



Over 40 people participated in a bus tour on October 22 to observe Forestry, Wildlife, and Conservation practices at several sites around the county.

# Understanding the Implementation of the Clean Water Act in Fauquier County - by Tom Turner

In 1972, the U.S. Congress passed the Clean Water Act (CWA) to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. This legislation addressed controls on both point source pollution (i.e. pipe discharges) and nonpoint source pollution (i.e. runoff) throughout our nation's waterways. As a result, considerable focus was directed at reducing pollution from *point* sources by applying the best available technology to waste water treatment plants and other industrial dischargers. Although these efforts made great strides in reducing impacts to the aquatic environment, many water quality problems persisted as a result of other more diffuse sources of pollution. In the late 1980s several lawsuits forced the U.S. Environmental Protection Agency to more aggressively enforce the CWA and address *both* point and nonpoint source pollution controls. This change in focus brought Total Maximum Daily Loads, or TMDLs, to the forefront of water quality protection. A TMDL is like a pollution budget for a surface water body. It is the maximum amount of pollutant within a stream, lake, or estuary that does not impede its use. The application of the TMDL concept also shifted the approach to pollution control by forcing scientists to look at the entire watershed and factor in all the variables that affect water quality rather than focusing upon one particular source.

To understand how this law is applied locally, we should also look at the fact that all State waters in Virginia are afforded protection so as to permit reasonable public uses and support the growth of aquatic life. The designated uses for each water body are determined by the State and include: drinking water, aquatic life, fish consumption, shellfish consumption, and swimming. To assure each designated use, a water body has an associated water quality standard or criteria which it must meet in order to fully support the use. (For example, the standard for bacteria is currently 235 *Escherichia coli* (*E. coli*) colony forming units per 100 milliliters of sample water taken at any time). If the pollution level within any given water body exceeds that of the water quality standard, then that water body is not able to support its use and is therefore listed on the States 303(d) roster. This list is referred to as the impaired waters list. Once on the

impaired waters list, the water body is slated for TMDL development.

The TMDL development process takes into account all the sources of pollution within the watershed and then determines how much of the pollutant can be assimilated by the water body and still meet the water quality standard. The allowable pollutant load (the water quality standard) is distributed among all the pollution sources of the watershed. The difference between the allowable load and the load which was measured in the stream that caused its impairment is the amount that needs to be reduced. All pollution inputs that exceed this TMDL must be reduced. Once a proposed method for achieving the needed reductions is determined, the TMDL is submitted to the U.S. Environmental Protection Agency for approval. Once approved, the State then determines when an implementation plan will be developed. An implementation plan outlines how the water body will be brought into compliance with the water quality standard. Typically a plan would include a schedule of actions, cost assessments, monitoring, and other methods, such as agricultural best management practices, needed to achieve the goals of the TMDL.

Currently there are 12 impaired stream segments in Fauquier County. All but one are listed as impaired for not supporting primary contact recreational uses due to high levels of bacteria. Some of these impaired streams have already gone through the TMDL development process. Some are now undergoing that process. In most of the TMDLs developed in Fauquier County, agriculture runoff, pets, and wildlife are believed to be the main sources of bacteria. Human sources have been shown to be minimal in most cases. Several of these TMDLs recommend exclusion of livestock from surface waters as a means of reducing bacteria loads. Virginia currently has no mandatory requirements for people or businesses in the watersheds with a developed TMDL plan to implement the plan's recommendations. Implementation is on a voluntary basis. With that said, it is interesting to look at the first goal of the 1972 CWA – "it is the national goal that the discharge of pollutants into navigable waters be eliminated by 1985."

## EVENT CALENDAR

**January 12th:** Private Pesticide Applicator Re-certification Course, Extension Office, 540-341-7950 for info

**January 14th:** Private Pesticide Applicator Review and Exam for initial certification, 540-341-7950 for info

**January 27th:** Area Forage Conference, Llangollen Farm, Upperville, 540-341-7950 to register

**February 23rd - 26th:** Mid-Atlantic Direct Marketing Conference, Landsdowne, VA [www.madmc.com](http://www.madmc.com)

**March 2nd:** Tools for Cleaner Streams & Greener Pastures, Middleburg Community Center, 6:30pm  
540-347-3120 x 3 to register (snow date March 9)



## Tree Seedlings from VDOF

The JMSWCD will ***not*** conduct a tree seedling sale this year, however, landowners who want trees can still order them through the Virginia Department of Forestry. The VDOF offers 37 species of seedlings that are all Virginia grown.



In addition to the popular pines and oaks, several other species of conifers and hardwoods are available, as well as seedlings and seed mixtures for riparian buffers, wind-breaks, wildlife, and erosion control.

Most tree seedlings are sold in bundles of 50, 100, 250, 500, and 1,000. Orders are shipped in March and April from the Augusta Forestry Center by UPS directly to the purchasers doorstep.

There are several ways to place an order. A seedling catalog with order forms is available from the local Forestry Department located on Frost Avenue in Warrenton. The phone number is 540-347-6358. Orders can also be made by phone directly to the Augusta Forestry Center at 540-363-7000. Orders can also be made online through the Virginia Department of Forestry website at <http://www.dof.virginia.gov/index.html>.

## New Employee

Jennifer Gray is John Marshall Soil and Water Conservation District's new Erosion and Sediment control inspector for single family home dwellings. She is a graduate of Radford University, in Radford, Virginia. Her major is in Geography with a concentration in Environmental and a minor in Geology. Jennifer graduated in May 2004 and is joining the district to begin her career.



Jennifer lives in Woodstock, Virginia. She spends her free time participating in fitness activities like kick-boxing, pilates, and choreographed dance, and also enjoys movies and shopping. She is also a member of the American Association of Geographers. Jennifer is looking forward to continuing in the implementation of the District's E&S program.

## After the Storm Video

'After the Storm' is a 22 minute video produced by the EPA and The Weather Channel for classroom/conference use. It features the importance of protecting water resources using a watershed approach. Call 540-347-3120 x 3 to borrow the video. It can be sent to schools by courier.

***The Conservation Strip*** is a quarterly publication of the **JOHN MARSHALL SOIL AND WATER CONSERVATION DISTRICT**, 98 Alexandria Pike, Suite 31, Warrenton, VA 20186

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# Single Family E&S Review

The Fauquier County Grading, Soil Erosion and Sediment Control Ordinance (Chapter 11 of the Fauquier County Code) requires landowners to obtain a Land Disturbance Permit prior to clearing, grading, filling, excavating, or transporting material on land within the County greater than 10,000 square feet in size. In cases where landowners are grading in preparation for building a single-family dwelling, this requirement is met by signing an Agreement in Lieu of a Plan form and obtaining either a Building Permit or a Land Disturbance Permit.

The Agreement provides an overview of the types of erosion and sediment controls required for construction of a single-family dwelling (e.g., a stone construction entrance, perimeter silt fence, and seeding and stabilization requirements). The Agreement is typically completed in conjunction with the Building Permit Application. Once the Building Permit is issued, grading activity is authorized to begin. In cases where the landowner wants to begin grading prior to obtaining a Building Permit, the landowner must obtain a Land Disturbance Permit prior to grading.

After a Building Permit or a Land Disturbance Permit has been issued authorizing grading activity, the landowner must

install the erosion and sediment controls as the first step in grading the site. As soon as these controls have been installed, the landowner must contact the John Marshall Soil and Water Conservation District to schedule the initial erosion and sediment control inspection.

For additional details on the permitting and inspection process, contact the Department of Community Development at 347-8708, or the JMSWCD at 347-3120 x 3.



Single family home under construction with good erosion and sediment controls (silt fences and grass cover) established.

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